

Fire in the Parks: What do you Think?

Survey Results

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Thank you for responding to last fall's survey concerning fire management in Sequoia National Park. We, at Paul Schissler Associates, spent the winter and spring analyzing the 530 responses and have submitted a final report to park managers. What follows is a summary of our results.

Relationship Between Three Rivers Residents And The Park

The park is an important local employer. Three Rivers residents are frequent park visitors. The Park and the surrounding landscape are powerful attractions that influenced respondents' decisions to locate a residence in Three Rivers.

- **22% of Three Rivers households include at least one member that is a current or former Park employee**
- **80% visited the Park at least once in the 12-month period preceding the survey**
- **Sight-seeing, day hiking and visiting the visitor center topped the list of activities respondents participated in during park visits**
- **Proximity to the Park, recreational opportunities, to get away from the unpleasantness of urban life and the beautiful natural setting were the most frequently cited reasons why respondents chose to live in Three Rivers**

Three Rivers residents do not feel well informed about fire events and fire management activities in the Park. Residents learn about fires and fire management mostly from the local weekly newspaper (72%) and personal communication with Park staff (13%).

- **21% feel well or very well informed about upcoming controlled burn activities in the Park**
- **26% feel well or very well informed about ongoing fires in the Park**
- **23% feel well or very well informed about opportunities for public comment on Park management**
- **72% learned the most about the Park's fire management activities and events from the Keweenaw Commonwealth newspaper**
- **13% learned the most about the Park's fire management activities and events from personal communication with Park staff**

Respondents who learned the most about the Park's fire management activities and events from the local newspaper feel, on average, significantly less informed than

respondents who report learning the most from communication with Park staff or the Park's newsletter, the Sequoia Bark.

Experiences with, and Beliefs About The Current Fire Management Program

Three Rivers residents are personally affected by smoke from Park fires. Most respondents have, at some time in the past, experienced discomfort related to smoke from Park fires. The smoke effects experienced most frequently by respondents at their homes included reduced visibility, breathing problems, unpleasant odor and other effects including nose, throat and eye irritation, allergic reactions, coughing, headaches, ash fallout, health effects on pets, and reluctance to exercise during periods of impaired air quality.

- **64% said they had experienced smoke-related discomfort at some time in the past**
- **25% responded that smoke bothered them at home during all or almost all Park fires that occurred in the past twelve months**
- **24% did not experience smoke effects at their homes during this period**
- **39% of respondents experienced reduced visibility**
- **33% suffered from breathing problems**
- **31% reported an unpleasant odor**

A minority of respondents believe that Park fires have large impacts on their neighbors and the community of Three Rivers.

- **36% believe that Park fires have a large effect on reducing the risk of local wildfires**
- **35% think the fires cause respiratory problems for local residents**
- **14% responded that the fires have a large effect on inconvenience due to road closures**
- **13% said fires cause Park access problems**

In response to open-ended questions, residents reported their opinions about the “best” and “worst thing” about fire management at the Park.

Best thing about fire management:

- **reduced risk of catastrophic fires**
- **improved forest health**
- **wildlife benefits**
- **dedication of firefighters and managers**

Worst thing about fire management:

- **Smoke from fires**
- **out of control fires**
- **poor air quality**
- **lack of information about fires**

Knowledge Of Regional Fire Management History

Large proportions of Three Rivers residents give the Park's fire management program high marks for its forest health objectives, but many respondents said they did not know how successful the Park's programs are in this area.

- **52% rated accomplishments good or very good for improving conditions for giant sequoia trees**
- **44% think the Park is doing a good job of reducing the risk of catastrophic fires**
- **44% said that the Park is accomplishing its objective of improving the health of the Park's forests**

Residents were more critical and surer of the Park's performance of community objectives.

- **Only 18% believe the Park is doing a good job of managing fires for minimum smoke**
- **24% think the Park is accomplishing its objective to educate local residents**
- **24% gave the Park a good rating for notifying residents of fire management actions**

Residents are unsure how the Park Service manages fires.

- **57% did not know how often management decisions are made locally**
- **40% did not know how often fires were purposely ignited**
- **30% did not know how often the smoke from recent fires violated air quality standards**

Understanding Of Fire-Adapted Ecosystems And Fire Management

Respondents possess a high degree of knowledge about the role of fires and fire management in the Park ecosystem. About half of Three Rivers residents think that restoring the Park's ecosystem is a high priority, and that fire management activities including prescribed burns and management-ignited controlled burns are necessary strategies.

- **48% agree or strongly agree that restoring natural ecosystem processes should be the Park's highest priority**
- **52% agree that, to restore natural ecosystems, the Park must allow natural fires to burn and even ignite fires under controlled conditions**
- **54% agree that managing lightning fires and lighting prescribed fires are the best ways to meet the Park's fire management objectives**
- **67% disagree or strongly disagree that the Park should suppress all fires because smoke is bad for the community**

Respondent preferences

Three Rivers residents are concerned most with protection of human health and private property over other objectives of Park management. More than three-quarters of respondents said that the following fire management objectives are important or very important to them:

- **Notify local residents of fire management actions (85%)**
- **Manage fires for minimum smoke in nearby communities (80%)**
- **Improve conditions for giant sequoia trees (79%)**
- **Reduce the risk of a catastrophic fire (77%)**
- **Educate local residents about fire management in the Park (77%)**

Residents think the Park could improve its performance of notifying residents of fire management actions and managing fires for smoke in nearby communities. These two objectives received the highest importance ratings and the lowest performance ratings.

Risk reduction and smoke management emerge as the highest priority fire management objectives when residents are asked to choose the *most important objective*.

- **51% said reducing the risk of a catastrophic fire is most important**
- **27% think that managing for minimum smoke in nearby communities is the most important objective of fire management**

Survey Response Differences by Demographic Subgroups

With some variation, Three Rivers residents are concerned most with protection of human health and private property over other objectives of Park management. This applies to men and women, those who live with someone with respiratory ailments, those who have experienced discomfort from smoke related to Park fires; to adult respondents of all age groups, geographical location, number of visits to the Park, and all levels of education. Still, subgroup differences are evident that make certain populations more or less likely to support specific objectives, recall fire-related events differently, and express divergent opinions on specific fire management issues.

- ***Smoke sensitivity.*** Whether or not respondents have ever experienced smoke discomfort from Park fires has a strong effect on their preferences for management objectives, their recall of fire-related events and understanding of fire-adapted ecosystem management. Smoke sufferers are less likely to view ecosystem management objectives as important, give Park managers poor performance ratings and are more likely to think that Park fires have had large or severe impacts on the community.
- ***Residence time.*** Compared to long-term residents, newer residents (less than six years in Three Rivers) believe that the negative effects of Park fires on the community are relatively small and that the positive effects are relatively large.

Newer residents are less likely to say that smoke bothered them or that it violated air quality standards in the 12-month period prior to answering the survey. Long-term residents are more critical of the Park's fire management program. Newer residents are more likely to rate the Park's accomplishments as good or very good for all listed objectives. Compared to newer residents, long-term residents downplay the importance of fire management objectives tied to ecosystem health goals.

- ***Park employment.*** Respondents from households with at least one current or former Park employee are more likely to believe that Park fires have large positive effects and small negative effects on Three Rivers. These residents are also less likely to claim that smoke from fires frequently bothered them or violated air quality standards in the previous one-year period. Respondents from these households are more likely to emphasize the importance of ecosystem health objectives.
- ***Gender.*** Women are more likely to believe that Park fires have large or severe effects on the Three Rivers community.
- ***Age.*** Older respondents believe that the effect of Park fires on the community is relatively small compared to younger respondents.
- ***Education.*** Respondents who report fewer years of formal education give the Park the highest marks for accomplishing certain fire management objectives. The lowest ratings came from residents with a graduate college education.
- ***Location.*** Location has little bearing on response differences to this survey. However, a few differences across location groups were noted. For example, Middle Fork area residents are the most likely (among Middle Fork, South Fork and North Fork respondents) to believe that Park fires have a large impact on decreased tourism and keeping friends and relatives from visiting.